

REMARKS

The present Amendment responds to the Office Action dated March 17, 2008. The Examiner set a shortened statutory period for reply of three (3) months, making the present Amendment due by June 17, 2008. Submitted herewith is a request for a two (2) month extension of time such that the present Amendment is timely if filed by August 17, 2008.

In the Office Action, claims 1-4 and 6-12 are pending. The Examiner has rejected the pending claims under 35 U.S.C. § 112, second paragraph, namely, for containing the term "moieties" in reference to the definition of R1 in claim 1. The Examiner will note that claim 1 is now amended to remove the term "moieties" therefrom. Applicants believe that amending claim 1 in this way addresses the Examiner's § 112 concern.

More substantively, each of the pending claims have been rejected under 35 U.S.C. § 103(a) as being unpatentable over FERRARINI et al. The pending claims have also been rejected under 35 U.S.C. § 103(a) as being unpatentable over BADAWEH et al. Applicants respectfully disagree and request that both § 103(a) rejections be withdrawn.

At the outset, Applicants would like to highlight the prosecution history of this case. Applicants properly disclosed both of the cited references - FERRARINI et al. and BADAWEH et al. – in a Supplemental Information Disclosure Statement, filed on January 20, 2006. Following this submission, the Examiner identified both references in the second Office Action mailed in this case, stating:

Presently claimed compounds differ mainly from BADAWEH et al. and FERRARINI et al. (IDS references) in having one naphthydrine ring completely unsubstituted wherein the reference it is always occupied by at least one group for example OH.

In Applicants' Amendment responding thereto, filed May 30, 2007, Applicants commented on the Examiner's statement, particularly noting with appreciation that the Examiner indicated that the claims appeared to be novel and nonobvious over these references and the other art made of record. Subsequently, on October 4, 2007, the Examiner mailed the third Office Action, which only

contained claim rejections relating to minor formalities. In this third Office Action, the Examiner *again repeated* the above statement regarding the FERRARINI et al. and BADAUNWH et al. references.

Applicants responded to the Office Action, amending the claims to address each of the informalities raised by the Examiner in anticipation of a Notice of Allowance. However, the Examiner mailed a fourth Office Action on March 17, 2008 rejecting the pending claims over FERRARINI et al. and BADAUNWH et al. – the very two references the Examiner previously conceded were of little consequence to the patentability of Applicants' claims.

With respect to FERRARINI et al., the Examiner now takes the position that the reference teaches:

1,8-naphthydines which appears to be of the presently claimed compounds covered by formula(I) as in claim 1. See table 2 on page 606 where compounds 2d, 5a, 5b, and 5c where R₂ is Cl, R₁ is H.

And, with respect to BADAUNWH et al., the Examiner now states:

Presently claimed compounds differ from the reference in containing H at wherein prior art teaches a methyl group. (R is CH₃, compound 6 on page 632). See Table 1, compounds 6 and 8 on page 633. R₃ represents CH₃.

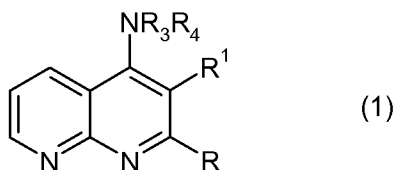
The Examiner does not reconcile this new position with the statements in the previous two (2) Office Actions. Accordingly, Applicants submit that the claim rejections are improper as it is unclear how two different positions can be taken by the Examiner without an understanding as to why the initial position isn't sufficient to deem the subject matter allowable over the second position taken.

Notwithstanding the foregoing, Applicants further submit that the FERRARINI et al. reference teaches naphthyridines compounds that are completely different from the naphthyridines of the present invention. First, Applicants' naphthyridine compounds have an amino group (NR₃NR₄) located directly opposite one of the nitrogen atoms of one of the pyridine rings. The FERRARINI et al. compounds, on the other hand, are *never* substituted at this position. Secondly, as already

conceded by the Examiner, Applicants claim naphthyridine compounds having a pyridine ring that is completely unsubstituted while FERRARINI et al. teach naphthyridine compounds wherein *both* pyridine rings are substituted.

Moreover, looking more specifically at the Examiner's statement in the present Office Action, she highlights compounds 2d, 5a, 5b, and 5c in Table 2, page 606 of the FERRARINI et al. reference. Table 2 is pasted here for ease of reference along with Applicants' claimed compound.

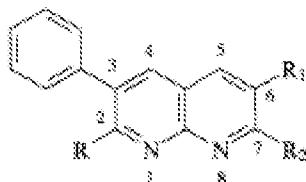
Applicants' claimed compound:



wherein

R is halo and R¹ is aryl or heteroaryl;

The FERRARINI et al. compound:



Comp.	R	R ₁	R ₂	Yield (%)	M.p. (°C)	Recrystallization solvent
2d	Pipz	H	NH ₂	48	246-248	benzene
3d	Pipz	H	OH	61	208-210	petr. ether 100-140°C
5a	Morph	H	Cl	84	205-207	petr. ether 100-140°C
5b	Pip	H	Cl	76	176-172	petr. ether 100-140°C
5c	Cap	H	Cl	68	154-156	petr. ether 100-140°C

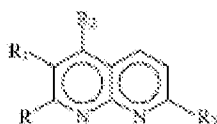
Here, the Examiner takes the position that when the FERRARINI et al. compound has the highlighted values for R, R₁ and R₂, one of ordinary skill in the art would be motivated to further modify the compound to arrive at Applicants claimed invention. These are completely different substitutions. Moreover, since both the carbon 4 and carbon 5 atoms of the FERRARINI et al. compound are unsubstituted, Applicants respectfully submit the presently claimed compounds are

not merely positional isomers of the prior art. The modifications that would be necessary to make on the FERRARINI et al. compounds are too significant to arrive at Applicants' claimed compounds.

Similarly, the BADAWEH et al. reference teaches naphthyridine compounds wherein both pyridine rings are substituted. Further, the Examiner highlights compounds 6 and 8 in Table 1, which has been pasted below for ease of reference.

The BADAWEH et al. compounds:

Table 1
Physical data of 1,8-naphthyridine derivatives



Comp	R	R ₁	R ₂	R ₃
1	OH	CH ₃	OH	CH ₃
2	OH	C ₆ H ₅ CH ₂	OH	CH ₃
3	Cl	CH ₃	Cl	CH ₃
4	Cl	C ₆ H ₅ CH ₂	Cl	CH ₃
5	Morph	CH ₃	Cl	CH ₃
6	Morph	C ₆ H ₅ CH ₂	Cl	CH ₃
7	Pip	CH ₃	Cl	CH ₃
8	Pip	C ₆ H ₅ CH ₂	Cl	CH ₃

The Examiner states “[p]resently claimed compounds differ from the reference in containing H at wherein prior art teaches a methyl group”. This is not the only difference. The R₂ position of the BADAWEH et al. compound is halo whereas the corresponding position in Applicants' claimed compound is an amino group. Additionally, the R position of the BADAWEH et al. compound is either Morph or Pip whereas the corresponding position in Applicants' claimed compound is halo. Applicants take the position that the modifications that would be necessary to make on the BADAWEH et al. compounds are also too significant to arrive at Applicants' claimed compounds.

Based upon the foregoing then, Applicants submit that the Examiner has not properly established a *prima facie* case of obviousness. First, Applicants are confused by the conflicting positions the Examiner has taken with respect to the references at issue here. This is particularly in

view of the fact that the initial position taken by the Examiner with respect to the references at issue now was set forth in not one, but two previous Office Actions. Secondly, the Examiner has not established the requisite motivation needed to establish a *prima facie* case of obviousness. Both the FERRARINI et al. and BADAUNWH et al. disclose naphthydrine compounds, but they are not as structurally similar to Applicants' claimed compounds as the Examiner suggests for the reasons set forth above. The Examiner has not set forth the requisite motivation needed to modify the naphthydrine compounds in either reference that would be necessary to arrive at the presently claimed invention.

Accordingly, Applicants submit that the pending claims are in condition for allowance and the Examiner is courteously solicited to pass this application on to allowance. No other fees are believed to be payable at this time. However, the Commissioner is authorized to debit any applicable fees from the deposit account of the undersigned, no 50-1676 in the name of Syngenta Crop Protection, Inc.

Respectfully submitted,

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